

## **REMARKS**

### **Introduction**

Claims 11 through 20 are currently pending and rejected in this application. In view of the explanations set forth below, Applicants submit that pending claims 11 through 20 are in condition for allowance.

### **Rejection of Claims 11 and 20 under 35 U.S.C. §112**

Claims 11 and 20 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner contends that the specification fails to provide written description as to what function is being performed on both the data to be transmitted and the inverted data to generate the first and second signatures. Figure 2 shows an overview of a method for signature analysis, in which a data input D is used to form a signature S. As illustrated in further detail in Figure 5 and explained in the corresponding text of the detailed description, a signature may be generated through a number of steps, including performing an EXOR operation on the contents of the data register and the signature register (107), inverting the contents of the data register (110) and performing an EXOR operation on the inverted contents of the data register and the signature register (112). Accordingly, the specification fully describes the features recited in claims 11 and 20.

It is therefore respectfully requested that the written description rejection of claims 11 and 20 be withdrawn.

### **Rejection of Claims 11 and 15-20 under 35 U.S.C. §102(e)**

Claims 11 and 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,584,526 ("Bogin"). Applicants respectfully submit that the rejection should be withdrawn for at least the following reasons.

As regards the anticipation rejections of the claims, to reject a claim under 35 U.S.C. § 102(e), the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (See *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991)). Still further, not

only must each of the claim features be identically described, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed invention, namely the claimed subject matter of the claims, as discussed herein. (*See Akzo, N.V. v. U.S.I.T.C.*, 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)). As further regards the anticipation rejections, to the extent that the Office Action may be relying on the inherency doctrine, it is respectfully submitted that to rely on inherency, the Office must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics *necessarily* flow from the teachings of the applied art.” (*See* M.P.E.P. § 2112; emphasis in original; and *see Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int’f. 1990)). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic.

Claims 11 and 20 recite, in relevant parts, “inverting the data to be transmitted; **forming, according to a specifiable signature formation method, a first signature as a function of both the data to be transmitted and the inverted data**; transmitting the first signature together with the data to a receiver; inverting the transmitted data at the receiver; **forming a second signature in the receiver according to the specifiable signature formation method as a function of both the transmitted data and the inverted transmitted data**; and comparing the first signature with the second signature.”

Bogin refers to a system which implements a data bus inversion technique in parallel with an error correcting code (ECC) technique. The two techniques are separate, but implemented in parallel. The Examiner contends that col. 3, line 52 to col. 4, line 40 of Bogin discloses the above-recited claimed signature formation steps. The cited section of Bogin refers to two types of transmission: from the memory 10 to the memory 21, and vice versa. In the first instance, data may be inverted by the inverter 16, in which case the inverter 17 re-inverts the data so that the ECC 33 is presented with the original, non-inverted data. According to Bogin, whether or not the data is inverted, “the data presented to ECC logic 33 is in its normal (non-inverted) form” (col. 3, lines 55-57). In the second instance, the ECC 33 receives data directly from the memory 21 and produces output to the inverter 17. **It is apparent that in both types of transmission disclosed in Bogin, the ECC 33 does not**

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**receive any inverted input.** Moreover, the ECC 33 **only receives a single input from which the ECC code is calculated,** instead of both an inverted input and a non-inverted input. Therefore, the ECC code is a function of only a single, non-inverted input.

For at least the foregoing reasons, Applicants submit that independent claims 11 and 20, as well as dependent claims 15-19, are allowable over Bogin.

#### **Rejection of Claims 12-14 under 35 U.S.C. §103(a)**

Claims 12-14 were rejected under 35 U.S.C. 103(a) as being rendered obvious by Bogin in view of U.S. Patent No. 6,311,311 ("Swaney"). Applicants respectfully submit that the rejection should be withdrawn for at least the following reasons.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, the Examiner must show, *inter alia*, that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references, and that, when so modified or combined, the prior art teaches or suggests all of the claim limitations. M.P.E.P. §2143. In addition, as clearly indicated by the Supreme Court, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to [modify] the [prior art] elements" in the manner claimed. See KSR Int'l Co. v. Teleflex, Inc., 82 U.S.P.Q.2d 1385 (2007). In this regard, the Supreme Court further noted that "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." Id., at 1396.

Claims 12-14 depend on claim 11. As noted above, Bogin fails to anticipate the invention recited in parent claim 11. Furthermore, the teachings of Swaney clearly fail to remedy the deficiencies Bogin as applied against claim 11. Accordingly, Applicants submit

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that the overall teachings of Bogin and Swaney clearly fail to render obvious dependent claims 12-14.


Withdrawal of the obvious rejection of claims 12-14 is respectfully requested.

### **CONCLUSION**

In light of the foregoing, Applicants respectfully submit that all pending claims 11 through 20 are in condition for allowance.

Respectfully submitted,

KENYON & KENYON LLP



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By: JONG LEE for Gerard Messina  
Gerard A. Messina  
Reg. No. 35,952  
One Broadway  
New York, NY 10004  
(212) 425-7200  
CUSTOMER NO. 26646